

Discussion of Office Action

Objections

The USPTO objected to the specification as lacking references to the parent applications which have issued as patents. The applicants have amended the specification to overcome this objection and request that the objection be withdrawn.

Rejections under 35 U.S.C. § 112

The USPTO also rejected Claims 7 -9 and 13 - 16 under 35 U.S.C. § 112. Those claims have been amended to overcome this rejection without adding any new subject matter. The applicants request that this rejection be withdrawn.

Double Patenting

The USPTO also rejected Claims 1 - 25 under the doctrine of obviousness-type double patenting over U.S. Patent No. 6,602,958 and 6,852,801. To overcome this rejection the applicants submit a Terminal Disclaimer citing both of these patents. Accordingly, the applicants request that this rejection be withdrawn.

Substantive Rejections under 35 U.S.C. § 102

The USPTO rejected all claims of the application based on a number of references including Cheng, (U.S. Patent No. 6,291,593) (the "'593 Patent"), Cheng (U.S.

Patent No. 6,433,091) (the "'091 Patent"), Gosiewski, et. al. (U.S. Patent 5,945,461) (the "'461 Patent"), Gosiewski, et. al. (U.S. Patent, 5,206,288) (the "'288 Patent"), Briggs, (U.S. Patent No. 4,773,957) (the "'957 Patent"), Briggs (U.S. Patent No. 4,942,201) (the "'201 Patent"), and Zalucha, et. al. (U.S. Patent 4,293,665) (the "'665 Patent"). The applicants respectfully traverse each of these rejections and request that they be withdrawn.

U.S. Patent No. 6,291,593.

Certain arguments that are made in response to the rejection based on the '593 Patent apply to all or most of the other cited references. While there may be similarities between the composition of the '593 Patent and the composition of the material that is claimed by the applicants, there are also important differences relating to at least one of the key components of that composition. As claimed in Claim 1, as amended, the adhesive or filling composition is comprised of three components: 1) a thermoplastic or partially thermoplastic polymer or elastomer, wherein at least one thermoplastic or partially thermoplastic polymer or elastomer is crosslinked or partially crosslinked, 2) an unsaturated polyester resin or vinyl ester resin, and 3) an alkyl acrylate or methacrylate monomer.

The unsaturated polyester resin or vinyl ester resin component of this composition is not taught by the '593 Patent and is also not taught by most of the other references.

In the discussion of this reference, the USPTO asserts that its Abstract and the table at cols. 2 and 3 disclose the "broad concept" of the invention. (Office Action, Page 5, lines 5 - 6) The applicants respectfully assert that the '593 Patent does not disclose the composition that is claimed in the application. Specifically, the '593 Patent fails to disclose the use of an "unsaturated polyester resin or vinyl ester resin."

Polyester and vinyl ester resins of the invention are discussed in the application beginning at page 15, line 12 and continuing throughout the application. The only composition in the '593 Patent that even contains the term "ester" is component 1 in the Table at col. 2 and col. 3 lines 11 - 18. At col. 3, line 11 - 18 the ester component that is disclosed is described as an "ester monomer." Note particularly that the materials which are disclosed in this paragraph are all monomeric materials with the preferable materials being "methacrylate ester monomers". Note also in the examples of the '593 Patent that the preferred "ester" material is methyl methacrylate. (See col. 6, line 24, col. 8, lines 10 and 36.) Nowhere in the '593 Patent is there any disclosure of

the use of a "polyester or vinyl ester resin" to produce an adhesive material.

Notwithstanding, it is possible that the methacrylate ester monomer of the '593 Patent is polymerized during the procedure of the '593 Patent. While the composition that would be produced from this polymerization is not specifically disclosed in the '593 Patent, the component created would be a polymeric methacrylate or acrylate material. This material is not the same as or equivalent to the "polyester or vinyl ester components" claimed in the instant application. Accordingly, it is clear that this important component is not disclosed by the '593 Patent. As such, the '593 Patent cannot qualify as a reference against any of the claims of the application. Therefore, the applicants respectfully request that the rejection based on the '593 Patent be withdrawn.

U.S. Patent No. 6,433,091.

There are many similarities between the '091 Patent and the '593 Patent that is discussed above. Once again the only ester material that is disclosed in the '091 Patent is an "ester monomer." (See col. 2, line 10 and the specific discussion at col. 2, lines 33 - 46.) Thus, the applicants assert that the "polyester or vinyl ester components" of the application are not disclosed.

It is important to note that the vinyl-terminated liquid rubber that is disclosed in the '091 Patent is also

not an "unsaturated polyester resin or vinyl ester resin", such as is claimed in the application. The discussion of the "vinyl ester resins" in the application begins at page 18, line 10 and continues thereafter. A review of the vinyl esters disclosed shows conclusively that they are distinctive from the vinyl terminated liquid rubber that is disclosed in the '091 Patent.

For these reasons as well as the reasons provided to distinguish the '593 Patent, the applicants respectfully assert that the '091 Patent does not teach any of the claims of the application, as amended. The applicants respectfully request that the rejection based on the '091 Patent be withdrawn.

U.S. Patent No. 5,945,461.

The applicants respectfully assert that there has been a miscommunication concerning U.S. Patent 5,945,461 as it does not disclose any composition similar to or the same as that claimed in the application. In addition, each specific reference in the Office Action on page 6 to a section of the '461 Patent does not disclose the information referenced in the Office Action. As an example, the Office Action states that the use of maleic acid is disclosed at col. 2, lines 27 - 32. No such disclosure is present at that location in the '461 Patent. The Office Action also states that the use of core shell copolymers is disclosed at col. 3, lines 25 - 66. No such

disclosure is present at that location. In fact, none of the cited disclosures are present at the locations cited.

The applicants respectfully requests that this rejection be withdrawn and, if there is an additional reference which was intended to be cited, that new reference be cited in the next Office Action. However, before citing any additional reference, the applicants respectfully request that the USPTO review the arguments made in this Amendment. Accordingly, the applicants request that the rejection based on the '461 Patent be withdrawn.

U.S. Patent No. 5,206,288.

The applicants respectfully assert, as with the '593 Patent, that the '288 Patent does not disclose the use of "polyester resins or vinyl ester resins" as claimed in all claims of the application.

The applicants acknowledge that certain components of the invention may be disclosed by the '288 Patent. While acrylate or methacrylate monomers are again disclosed, there is no disclosure of unsaturated polyester resins or vinyl ester resins of the type that are claimed in this application.

Accordingly, the applicants request that the rejection based on the '288 Patent be withdrawn.

U.S. Patent No. 4,773,957.

The USPTO has stated that the invention, as claimed, is disclosed in the '957 Patent and cites as proof thereof the Abstract. In the Abstract the components of the composition of the '957 Patent include: 1) an acrylate-based or methacrylate-based ester monomer, 2) a catalyst, 3) a chlorinated or chlorosulfonated polyethylene polymer resin and 4) a graft co-polymer resin. Nowhere is there disclosed any form of an unsaturated polyester resin or vinyl ester resin nor is there even a mention of the preferred unsaturated polyester resin or vinyl ester resin. Accordingly, as with the other references, the applicants respectfully request that the rejection based on the '957 Patent be withdrawn.

U.S. Patent No. 4,942,201.

The applicants respectfully assert that the composition of this patent also fails to disclose the unsaturated polyester resin or vinyl ester resin of the application. In particular note the Abstract of the '201 Patent, where it states that the adhesive composition is made from 1) methacrylate ester monomers, 2) elastomeric polymers, 3) core-shell polymers, and 4) free radical producing catalysts. The reference in the Office Action to bridging paragraphs 4 and 5 discloses the same compositions listed in the Abstract. There is no disclosure of the use of "polyester resins or vinyl ester

resins." The applicants therefore request that this rejection be withdrawn.

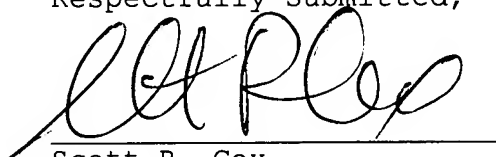
U.S. Patent No. 4,293,665.

In contrast to the other references cited, the '665 Patent does mention the possibility that certain polyester material **may** be used as an additional component of the disclosed composition. (See Example VI and col. 7, lines 24 - 36.) Notwithstanding, the polyester component is only an optional component and, in fact, only one of eight such optional components. Further, there is no disclosure of thermoplastic polymers or elastomers which are partially crosslinked, as is now claimed in all claims of the application. In addition, none of the particular types of crosslinked or partially crosslinked thermoplastic polymers that are present in this application are disclosed within the '665 Patent. Accordingly, the applicants respectfully request that this rejection also be withdrawn by the USPTO.

CONCLUSION

The applicants respectfully assert that all of the rejections have been either distinguished or overcome by amendments to the claims. The applicants respectfully request that a Notice of Allowance be issued. If there are any questions concerning this Amendment, please contact applicants' counsel.

Respectfully Submitted,



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